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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/655,984 | 09/05/2003 | Jalil Tlemcani | 2937.04US02 | 8925 |

7590 06/16/2004
Patterson, Thunte, Skaar & Christensen, P.A.
4800 IDS Center
80 South 8th Street
Minneapolis, MN 55402-2100

| EXAMINER |
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GREEN, CHRISTY MARIE

| ART UNIT | PAPER NUMBER |
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3635

DATE MAILED: 06/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application N .

10/655,984

Applicant(s)

TLEMCANI ET AL.

Examiner

Christy M Green

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 6/14/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

This is a first office action for serial number 10/655984, entitled Fire-Resistant Door, filed on September 5, 2003.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3 and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Davidian, US patent # 5,121,950.

Davidian discloses the claimed invention a fire resistant door (column 2, lines 6-9) comprising, a frame (12, 14), a door (10) hingedly connected to the frame (by 16), and a heat activated self closing mechanism (Figures 2 and 3) comprising a trigger mechanism (20) including a firing pin (34), a fusible link plug (44), and a slave pin (56) spaced from the firing pin by the fusible link plug (figure 2), and wherein the fusible link plug melts (column 3, lines 67-68) when exposed to sufficient heat which enables the firing pin (34) to actuate the slave pin (56 - column 4, lines 1-2); the trigger mechanism (20) further comprises a compression spring (42) biased against the firing pin (34 - column 3, lines 43-45), which actuates the firing pin when the fusible link plug melts (column 3, lines 67 and column 4, lines 1-2); the fusible link plug further comprises a melting core (interpreted to be the thickness of the fusible disk - column 5, lines 53-59); and the frame comprises a flange (at 12a and 14 in figure 1).

Claims 13, 14 and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Perrone, US patent # 5,565,274.

Perrone discloses the claimed invention a fire resistant door (47) comprising a frame (46a-d), a door hingedly connected to the frame (by 51 and 52), the door having a bottom wall (47e), a top wall (where 47b points to), and side walls (47a & 47c), the bottom wall having an outside surface (where 47 e points to) and the top wall (47b) having an outside surface (figure 2), and a layer of intumescent material (48) on the outside surface of the bottom wall (column 7, lines 47-49), and the outside surface of the top wall being clear of additional insulation material (figure 2); the top wall is clear of cementitious material (figure 2); the door has a bottom wall, top wall and side walls, where the top and sidewalls comprise aluminum (column 2, lines 61-63).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4-10 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Davidian in view of Perrone.

Davidian discloses the claimed invention as stated above in claim 1, including the door has a bottom wall, top and side walls (see attached figure 1), the top wall has an outside surface (when the door is open, the outside surface of the top wall is seen), and

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wherein no cementitious material is applied to the outside surface of the top wall (not disclosed or shown in figures).

Davidian does not disclose a collapsible supporting member, adapted to hold the door spaced from the frame in an open position; the supporting member having a gas spring, a pressurized cylinder core and a pressure release valve; threaded hollow stud; the trigger mechanism interacts with the collapsible supporting member; the top and sidewalls comprise aluminum material; a layer of intumescent material applied to the outside surface of the bottom wall; and a fiberglass gasket connected to the flange of the frame.

Perrone teaches that it is known in the art to provide a fire rated door with a collapsible supporting member (11, 12), adapted to hold the door (47) spaced from the frame (46a-d) in an open position (figure 2); the supporting member (11, 12) having a gas spring (interpreted to be the air, CO₂ or other gas), a pressurized cylinder core (13) and a pressure release valve (16); a hollow stud (14 of 11 - figure 1); the trigger mechanism interacts with the collapsible supporting member (would have to interact with one since they are both connected to the door and related to the door being in an open and closed position). It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the collapsible supporting member having a gas spring, a pressurized cylinder core and a pressure release valve; threaded hollow stud and the trigger mechanism to interact with the collapsible supporting member as taught by Perrone with the fire door of Davidian, in order to manually hold

the door in an open position in a non-emergency mode (column 5, lines 62-67), the threaded hollow stud - to provide a more secure collapsible supporting member.

In regards to the top and sidewalls comprise aluminum material; although Davidian teaches metal doors (column 4, lines 24-25) and also teaches away from using aluminum since the melting temperature of most aluminum alloys is 1200 degrees F and have a lower fire resistance than ferrous metals (column 1, lines 41-44 and lines 53-54), Perrone teaches that it is known in the art to provide the top and side walls comprise aluminum (column 2, lines 61-53), it would have been obvious for one having ordinary skill in the art at the time the invention was made to modify the door of Davidian with the aluminum top and side walls as taught by Perrone in order to provide a lightweight structure or if as desired by use (column 2, lines 61-64).

In regards to a layer of intumescent material applied to the outside surface of the bottom wall, Perrone teaches that it is known in the art to provide a layer of intumescent material (48) applied to the outside surface of the bottom wall. It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the intumescent material as taught by Perrone with the door of Davidian, in order to provide an insulating effect once the material is charred by fire (column 7, lines 54-56).

In regards to a fiberglass gasket connected to the flange of the frame, although Davidian does not teach the fiberglass gasket, it would have been an obvious matter of design choice to incorporate a gasket within the framing member, since applicant has not disclosed that this fiberglass gasket solves any stated problem or is for any

particular purpose and it appears that the invention would perform equally well with the reference cited.

Claims 13 and 15-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Davidian in view of Perrone.

Davidian teaches the claimed invention as stated above in claim 1, except for a layer of intumescent material on the outside surface of the bottom wall. Perrone teaches that it is known in the art to provide a layer of intumescent material (48) on the outside surface of the bottom wall. It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the intumescent material as taught by Perrone with the door of Davidian in order to provide an insulating effect once the material is charred by fire (column 7, lines 54-56).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christy M Green whose telephone number is 703-308-9693. The examiner can normally be reached on M-F 8:00-4:00.

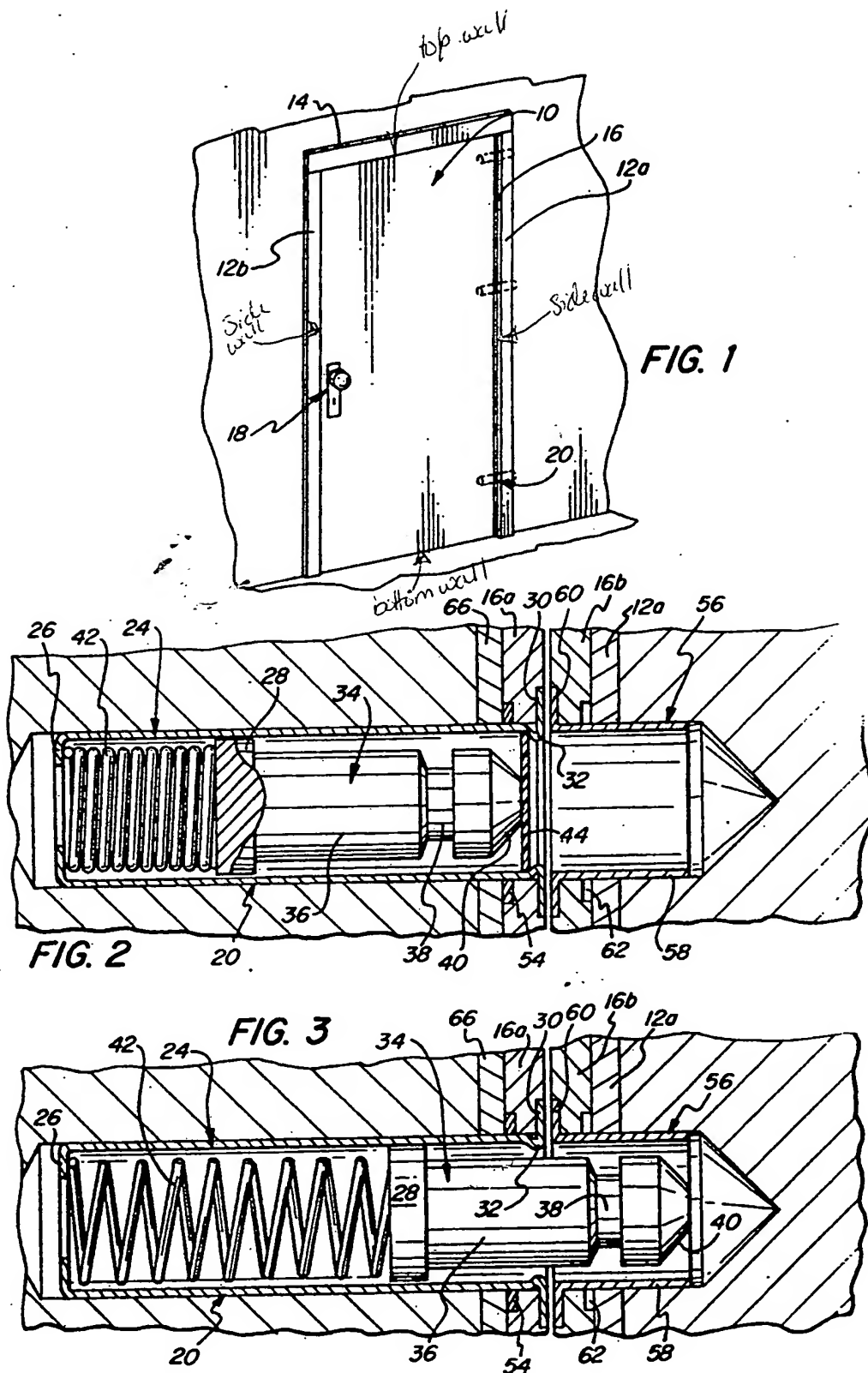
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carl Friedman can be reached on 703-308-0839. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Christy Green
Patent Examiner
June 10, 2004



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